1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

286 ture and pattern the skins of animals. Judged on a visual
531 basis, the designs on Aztec clothing were by no means inferior to those of the celebrated textile art of Indian Peru. However, we have no positive evidence that technical development of Aztec weaving was equal to Peruvian, for those ancient South American weavers knew and practiced every method known to man and even a few unique to themselves.[6] (See Plates 33–36; 62, bottom left; 64.)

287 Feather mosaic is probably an old craft, since evidence seems to show that it was known to the Upper Middle Cultures. Feather- and the technically allied fur-cloth appear in primitive horizons in North America. The process consisted in tying the stems of feathers into a fabric during the weaving process. Featherworkers adorned shields in this way, dispersing the feathers to represent animals or else purely decorative designs. They made cloaks, too, and created sumptuous insignia worn on the head or harnessed to the body. In these objects the blending of colors was so delicate and perfect as to rival paintings. As late as the nineteenth century, although the art had declined, the Mexicans still depicted landscapes and scenes from daily life in this medium, and today they make charming pictures for the tourists with cardboard, feathers and glue.[7] (See Plate 45.)

321 Feather mosaic had an early counterpart in stone and
324 shell; we found a turquoise mosaic in a Lower Middle Culture grave. The wooden handles of sacrificial knives were sometimes ornamented in this way, as were masks, shields and even small gold ornaments. A *tour de force* of the mosaic worker is a wooden shield from the Mixteca, on which little pieces of turquoise were fitted together in a relief sculpture depicting a religious scene.[8] (See Plates 48; 60, bottom right.)

1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

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PLATE 48

AZTEC MOSAIC WORK

Mosaic work was one of the most elegant crafts and demands color reproduction to give a just impression. The mask in jade and turquoise, now in Russia, was part of the original loot of the Conquest. The skull (below), a British Museum treasure, is composed of light bands of turquoise and dark ones of lignite, set on a human skull, cut away in back to form a mask, possibly representing Tezcatlipoca.

[p. 144 (D)]

1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

321 Mosaic workers utilized stones of different colors and shells of various kinds. Pure designs were common, but elements representing the costume or the body paint were shown when the mosaic covered a figure in wood or stone. An application of mosaic on a larger scale was frequent in architecture, a veneer of cut stone being applied to the rubble of a platform or building. The temples of Mitla, Oaxaca, influenced by the same Mixteca-Puebla culture to which Aztec civilization owed its origin, are masterpieces of this technique, for individual blocks have their surfaces carved to fit together in an intricate geometric design.[9] (See Plate 11, bottom.)

322 The woodworkers, owing to the impermanence of their medium, have left little to exhibit their prowess, but the few surviving masks, idols, drums and *atl-atls*, or throwing boards, bear ample witness to their superb craftsmanship. The very fact that they had to work wood with stone tools makes their achievement noteworthy. Their copper tools were dull and unserviceable in cutting even the softer woods, and these implements came into use relatively late in Aztec times.[10] (See Plate 54, bottom.)

335 Wood was used extensively in buildings for roof beams and doorjambs. A beam in the palace at Texcoco was ninety feet long and five feet thick, so that its preparation and transport must have been an arduous task. There was probably little use of planks in Aztec building, since it would be difficult to prepare them with the rudimentary equipment at Aztec disposal, and adobes and plaster were easier to make and just 396 as serviceable. Wooden canoes, however, were essential for life in the lakes. Some were dugouts hollowed out by fire, but others, to judge from the type used by the Xochimilcan

13: Phillips U-4 (no date) 1925
NU7 Aztec NU7

S. G. Morley in his description of Copan says:

"The discovery of copper bells of Mexican origin at a number of archeaological sites in Arizona and New Mexico clearly point to trade relations between the Pueblo Indians and the tribes of Central America in pre-Columbian times; these bells very closely resemble the copper bells found in the sacred Cenates of Chichen Itza, Yucatan, which can hardly have been carried there before 1200 A. D.

Analysis has proved these metal bells to be copper with some little impurities; and it is believed they were cast by what is known as the *cire perdue* process. This method consists in using a wax model, or a core of clay covered with a wax pattern, the mould being heated, the wax melted and ran out, leaving the shape of the object to be cast, which was then filled with the melted metal. This is interesting because this process was well known to the makers of bronze ornaments in Europe, and it is a question if these little bells found in the Aztec or Maya burials were made by the *cire perdue* process; was it a discovery by the American race independent of foreign knowledge?

This might suggest a greater antiquity for this art of casting than that in Europe and would show a considerable amount of experience in metallurgy for the aborigines, and it is surprising that more elaborate objects were not made by them. Judging from the character and variety of cast objects of bronze from South America, the ancient Peruvians were familiar with the *cire perdue* method. Did the Inca discover it? They were certainly the earliest users of the alloy bronze in America with the exception of the unknown builders of Tiahuanaco, among whose ruins have been found bronze tools. With regard to the knowledge the Aztecs had of bronze, it is difficult to establish their claim until more analyses are made of specimens of undoubted Mexican origin, indicating an alloy with a composition of about 90% copper and 10% tin. The following analyses by P. Rivet, taken from his contribution in the *Journal de la Société des Américanistes de Paris* show to what extent tin was used by the Aztecs in their metal objects.